



Long Island Botanical Society

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The Quarterly Newsletter

Spring 2009

Native *Phragmites* Located on Long Island

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I have been involved in wetland inventories since 1970 when, as a graduate student at the University of Connecticut, I was hired as a biological technician to help conduct the first and only on-the-ground survey of Connecticut's tidal wetlands. The purpose of that survey was to establish the legal boundaries of tidal wetlands for administering the state's Tidal Wetlands Act of 1969. This inventory was conducted by walking the boundaries of tidal wetlands, marking the boundary usually with wooden stakes, recording the location of the boundary points on large-scale aerial photographs, and completing a datasheet listing the plants observed at the point and any wildlife observations. The results of this survey were published in two reports (Lefor and Tiner 1972, 1974) and a series of maps that were used to establish the state's regulated tidal wetland boundaries. During this survey, I walked through many common reed marshes (*Phragmites australis* (Cav.) Trin. ex Steud.) and will never forget the experience of pushing my way through the dried 12-foot high stems on numerous hot humid summer days while carrying a bundle of wooden stakes and an axe.

In the early 1970s, there was little or no discussion about the existence of a native type of common reed in northeastern United States as the plant was viewed as an invasive species, either an unwanted introduction or a genetic mutation of the species that was native to the United States. *Phragmites* typically invaded salt marshes that had their tidal connection restricted by roads or railroad beds in combination with undersized culverts or tide gates. With reduced salt stress, these marshes changed from low grasslands to tall reed marshes virtually dominated by a monoculture of common reed. In the late 1970s, William Niering and colleagues at Connecticut College found the remains of *Phragmites* rhizomes in 3000-year old peat cores extracted from a marsh in Branford Harbor, CT (Niering et al. 1977), so we then knew that *Phragmites* in some form had been part of the New England estuarine marsh landscape since their establishment after the last ice age. At the time of this country's settlement, along the Atlantic coast, common reed was typically limited to oligohaline (slightly brackish) and tidal fresh

marshes and to the borders of salt and brackish marshes. Its dominance of salt and brackish marshes appears to be a relatively recent phenomenon (Orson 1999). The predominance of the invasive type has been facilitated by tidal flow restrictions (Roman et al. 1984) and soil disturbance and eutrophication associated with coastal development (Bertness et al. 2002).

Since the 1970s, scientists have developed techniques for analyzing genetic material to determine genotypes of plant and animal species. Using one of those techniques (chloroplast DNA extraction from dried leaves), Kristin Saltonstall analyzed 206 leaf samples from modern and historic specimens (the latter were herbarium specimens dating back to the 1850s; Saltonstall 2002). She was able to genetically separate native from introduced haplotypes and identified eleven native haplotypes, all of which have nothing in common with the introduced haplotype M which is common in Europe and Asia. This discovery has led to further examination of the living plants and some key morphological differences have been noted between the native types and the introduced type (Table 1). These morphological properties have been proven useful for distinguishing between native and introduced types in the field (Meadows and Saltonstall 2007). The native type has been described as *Phragmites australis* (Cav.) Trin. ex Steud. ssp. *americanus* Saltonstall, P.M. Peterson, and Soreng (Saltonstall et al. 2004).

A couple of years ago, while doing some field research for my "Field Guide to Tidal Wetland Plants of the Northeastern United States and Neighboring Canada" (Tiner 2009), I came upon what appeared to be a stand of native common reed in the marshes along New Hampshire's Great Bay at the Sandy Point Discovery Center (Greenland, NH). As I was walking along the boardwalk, I noticed that the stems of these reeds were smooth, lacking leaf sheaths, and marked with a reddish or maroon tinge, and I thought to myself that these were the native type. Moments later I came upon a sign confirming my observation. That was my first encounter with the native type in the wild.

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Long Island Botanical Society

Founded: 1986
Incorporated: 1989

The Long Island Botanical Society is dedicated to the promotion of field botany and a greater understanding of the plants that grow wild on Long Island, New York.

Visit the Society's Web site
www.libotanical.org

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Society News

Results of LIBS Election. At the November 11, 2008 LIBS meeting, the following individuals were elected to two year terms on the LIBS Executive Board: Eric Lamont, President; Andrew Greller, Vice President; Carol Johnston, Treasurer; Barbara Conolly, Recording Secretary; John Potente, Corresponding Secretary. Committee Chairpersons are not elected positions but are appointed by the Board. LIBS sincerely appreciates and thanks all members who volunteer to serve the Society.

New LIBS Flora Committee Chair: Dr. Gerry Moore. LIBS is pleased to announce that Gerry Moore has agreed to serve as chair of the flora committee, following the tragic and untimely death of Steve Clemants [see LIBS Newsletter, vol. 19(1)]. This appointment is especially crucial because Gerry is Director of Science at Brooklyn Botanic Garden, and the enormous database containing the flora committee's records on the vascular plants of Long Island is housed at BBG.

Dr. Moore earned his Ph.D. from Vanderbilt University in 1997. From 1998-2000, he was Assistant Professor in the Department of Biological Sciences at Alabama State University and in 2000 he began his career at BBG as a Research Taxonomist. Gerry is considered one of the top field botanists in the Northeast specializing in taxonomically difficult plant groups such as sedges (especially *Rhynchospora*), grasses, and the genus *Rubus*. He is widely published and a popular public speaker. He currently serves on several local botanical and environmental boards and committees including the Scientific Review Committee of the Long Island Invasive Species Management Area and the Rare Plant Status Committee of the New York Natural Heritage Program.

Report from the LIBS Flora Committee. Currently, Skip Blanchard has been updating the original hard copy of records of L.I. vascular plants with information supplied by numerous local field botanists who commented on the *Draft Atlas of the Vascular Plants of Long Island, New York*.

Members of the Flora Committee have agreed that the group's main task is completion of the *Atlas*. Towards this end, the updates compiled by Skip need to be input into the *Draft Atlas*, but this task may be very difficult and time consuming without the expertise of Steve Clemants. Members of the committee also plan on visiting several herbaria, including NYS in Albany, to clarify questionable reports and obtain additional distribution data.

Announcement

All are invited to a special event

Honoring Dr. Steven Clemants (1954-2008)

Leading Botanist, Plant Conservationist, Environmental Educator

Friday, May 8, 2009, 6pm

Central Park, New York City

- . Tree Planting – Hallett Nature Sanctuary
- . Presentations – The Arsenal, Third Floor

For more information, contact

Lesley Meurer, Greenbelt Native Plant Center

E-mail: GNPCINFO@PARKS.NYC.GOV or Phone (718) 370-9044

RSVP by April 17th

(Cont. from page 9)

This past October when field checking some draft map data for an update of the U.S. Fish and Wildlife Service's National Wetlands Inventory for Long Island, I came upon a small patch of what appeared to be the native type of common reed in the marshes of Bellport Bay. There was plenty of the typical, invasive *Phragmites* in the area, but I noticed that the reed stems in one area were rather smooth, lacking leaf sheaths, and had distinctive maroon markings. I thought that this was the native species as it was distinctly different from the other reeds in the marsh. When I returned to my office, I sent an email to Bernd Blossey (Cornell University) to ask if he was aware of any stands of the native type on Long Island. He replied that although there were some historical accounts of *Phragmites* on the Island, there were no known locations of the native type in existence today. He asked if I could send him a sample of the stem for verification. In December, I collected some samples and forwarded them to Bernd Blossey who confirmed that they were from the native subspecies.

As far as we know, this is the first documented occurrence of the native type on Long Island in a hundred years or more and the only recorded site for the native subspecies. The native type occurred both in the upper edges of a salt marsh in a small patch of salt marsh bulrush (*Schoenoplectus robustus* (Pursh) M.T. Strong) and with the introduced type along a road embankment. Other species associated with the native type included seaside goldenrod (*Solidago sempervirens* L.), swamp rose (*Rosa palustris* Marsh.), and poison ivy (*Toxicodendron radicans* (L.) Kuntz.).

After nearly 40 years of working in the wetlands from Maine through South Carolina, I am pleased to know that some populations of the native subspecies have survived along the Atlantic coast and that I was able to locate one such population on Long Island. I suspect that more populations will be discovered as biologists and nature enthusiasts familiarize themselves with the properties of the native subspecies. Also armed with the knowledge of the morphological differences between the native and the introduced types, wildlife managers and restoration ecologists should be able to recognize populations of the native subspecies and treat them as rare or uncommon plant communities, worthy of protection and maintenance, rather than as invasive noxious plants in need of eradication or control.

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Table 1. Morphological differences between native and introduced *Phragmites* in North America. (Adapted from Blossey 2002 and Saltonstall 2006). *Most reliable traits according to Saltonstall (2006).

| Property | Native Type (excluding Gulf Coast type) | Introduced Type |
|--------------------|--|---|
| Leaf sheaths* | Deciduous, most drop off in the fall, leaving stems naked (unsheathed) | Retained on plant, not easily removed |
| Stem color at base | Maroon or red to chestnut (growing season) Light chestnut to light gray/brown (winter) | Tan |
| Stem internodes | Maroon to reddish markings (fade upon exposure to sunlight) | Tan |
| Stem spots | Small, round dark fungal spots on dead stems or on stems in late summer | Rarely marked with such spots |
| Stem texture | Smooth and shiny | Rough (narrow ribs) and dull |
| Stem density | Low | High |
| Stem flexibility | More bendable | More rigid |
| Stem toughness | Low | High |
| Leaf color | Yellow-green | Dark gray-green or blue-green; yellow-green in brackish areas |
| Ligule width* | 1.0-1.7 mm | 0.4-0.9 mm |
| Inflorescence | Sparse, more open panicle | Dense, often purplish |
| Senescence | Early | Late |
| Lower glume length | 3.0-6.5 mm | 2.5-5.0 mm |
| Upper glume length | 5.5-11.0 mm | 4.5-7.5 mm |
| Rhizome density | Low | High |
| Rhizome color | Yellowish | White to light yellow |
| Rhizome diameter | Less than 15 mm (typical) | More than 15 mm (mostly) |

Note: In the two populations of the native species that I observed, I felt that the stems of the native seemed more firm and woody than those of the invasive; they felt more like the shafts of an arrow and actually made a hollow clanking sound when two or more stems were hit together. Another feature that I noticed was that the stems of the native type also tended to diverge slightly from the main axis at several nodes rather than continuing in a generally straight upward direction (following the main axis), while the stems of a few invasive specimens I have examined are much straighter. More specimens need to be examined to see if this is a characteristic trait and one that is restricted to the native subspecies.

(*Phragmites*, cont. from page 11)

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Weird Whorls: Hydrocotyle Identification on Long Island

Steve Young, New York Natural Heritage Program

A few years ago on a late afternoon I decided to check on the population of the rare *Hydrocotyle verticillata* (whorled marshpennywort) at Kellis Pond in Bridgehampton. The plants were first seen in 1986 by Bob Zaremba among plants of *Hydrocotyle umbellata* (manyflower marshpennywort) along the northeastern shore. I parked along a new dirt road near the pond that was to become the road to a series of new McMansions on the east side of the pond. I had been here before, in 1998, to check on the plants but the pond levels were so high the vegetation was underwater. This time the water was low enough to see a good-sized population of *Hydrocotyle*. It was growing in the gravel not far from the water's edge. As I examined the plants I saw that some of them had flowering stalks with one whorl of flowers but others had more than one as Bob had seen (see Fig. 1). I wondered if these two species could actually grow together or if something was strange about the more common *Hydrocotyle umbellata*. Maybe it was all *H. umbellata* and some of the stalks just happened to have more than one whorl. That winter I decided to look into it in more detail.

My first clue was the description of *Hydrocotyle umbellata* in Gleason and Cronquist's Manual of Vascular Plants of the Northeastern United States and Adjacent Canada (1991). Here they describe the umbels as "usually simple." Next I went to the herbarium at the New York Botanical Garden and examined specimens of *H. umbellata* and *H. verticillata*. In the folder for *H. umbellata* I saw over 20 specimens from the East Coast of the United States that had two whorls of flowers (see Fig. 2) but rarely more than two, although one had up to four. The specimens that I examined in the folder for *H. verticillata* always had three or more whorls (see Fig. 3). There were three other distinguishing characteristics.

The pedicels of *H. umbellata* were usually much longer than the fruits, whereas the pedicels in *H. verticillata* were as long as or shorter than the fruits, so the fruits often appeared sessile. The fruits of *H. umbellata* are notched on the bottom but the fruits of *H. verticillata* are truncate to rounded at the base. Also, *H. umbellata* usually has ten or more flowers per whorl where as *H. verticillata* usually has five or fewer. With this information in hand I decided that the plants at Kellis Pond consisted of the double-whorled plants interspersed with the normal ones and they were not *H. verticillata*.



Fig. 1. *Hydrocotyle umbellata* with multiple whorls, Kellis Pond

(Cont. from page 12)

Fig. 2. *Hydrocotyle umbellata* specimen at New York Botanical Garden with 2 whorls of many flowers and long pedicels.



Fig. 3. *Hydrocotyle verticillata* specimen at New York Botanical Garden with 3 whorls of few flowers on very short pedicels.

In 2004 I returned to another population that had been described as *Hydrocotyle verticillata* to check its identification. These were plants that Betty Lotowycz had first collected in 1975 along the edge of the Little Peconic Reservoir opposite the County Center in Riverhead. It turns out they were also *H. umbellata* with an extra whorl (see Fig. 4). Did that mean none of our populations of *H. verticillata* in New York were indeed that species? There were three other populations on Long Island that were described as *H. verticillata*. A check of the plants at Fort Pond in Montauk showed there were only a few inflorescences to be seen. There were always more than two whorls per stalk and five or fewer flowers per whorl on fairly short pedicels (see Fig. 5). I would call these *H. verticillata* but I would like to see a larger sample of inflorescences.

Hydrocotyle verticillata was first collected at Big Reed Pond in 1968 by Stanley Smith and again in 1984 by Bob Zaremba. The specimens at the New York State Museum and Cornell look good (see Fig. 6). I've not been able to recheck these in the field since the water levels have been too high when I have been there. A specimen from Staten Island collected in 2004 by Ray Matarazzo keys to the species so that leaves a total of three extant populations in New York. In 1993 plants identified as *H. verticillata* were reported from Long Pond south of Sag Harbor but there were no specimens or photographs taken and the plants have not been rechecked.



Fig. 4. *Hydrocotyle umbellata* with 2 whorls of flowers at Peconic Reservoir.



Fig. 5. *Hydrocotyle verticillata* at Fort Pond with 3 whorls of few flowers.

(Cont. from page 13)

There are two remaining historical specimens. At the New York State Museum there is one that was collected in 1910 by Bicknell from "Smithtown Creek" but there were no flowers on the specimen so its identification is doubtful. The other specimen is an 1895 specimen from the Brooklyn Botanic Garden herbarium with the location of "Westhampton." The location is too vague to know exactly where it was collected. Interestingly a Brooklyn Botanic Garden specimen of *Hydrocotyle umbellata* from Fishers Island shows the two-whorled character.

I also plan to check the remaining populations of *Hydrocotyle umbellata* on Long Island to see how many of them exhibit the extra whorl of flowers. In 1985 and 1986 Bob Zaremba had documented 11 extant populations. Bob felt that there were many more to be found and the species was put on the Heritage watch list. In future years I would like to look for additional populations to evaluate whether this species should instead be on the active rare list and elevated to threatened or endangered status. Please let me know if you are familiar with any current locations for this species.

With a little more work we should have a much better handle on the distribution and abundance of these two uncommon species of *Hydrocotyle* in New York



Fig. 6 *Hydrocotyle verticillata* at Big Reed Pond with 4 whorls and truncate fruits. Bob Zaremba 1984 specimen.

Plant Sightings

Plant Sightings from 2008 Compiled by Eric Lamont

Azolla caroliniana; Mosquito-fern, Water-fern (Azollaceae, the Mosquito-fern Family; previously included in the Salviniaceae, the Floating Fern Family). Andy Greller and Rich Kelly collected this rare, native fern from a deep kettle hole pond on the southeastern side of Cunningham Park, Queens County, on 31 July 2008. The draft LIBS atlas of L.I. vascular plants (2005) also lists this aquatic fern from Queens County, but at this time it is not certain if the two reports represent the same population.

Coreopsis rosea; Rose Coreopsis (Asteraceae, the Aster Family). A population of this coastal plain species was observed during a LIBS field trip, led by Karen Gluth, at Laurel Lake Preserve just west of Mattituck in Southold Township, Suffolk County. Rose Coreopsis is listed as a rare plant in New York by NYNHP; the only extant populations in NY occur in eastern Suffolk County.

Isotria verticillata; Large Whorled Pogonia (Orchidaceae, the Orchid Family). More than 1000 individuals were observed at Blydenburgh County Park in Smithtown Township, during a LIBS field trip led by Daniel Karpen.

Kochia scoparia [*Bassia scoparia*]; Summer-cypress, Belvedere-cypress (Chenopodiaceae, the Goosefoot Family). Reported by Guy Tudor from Broad Channel, Queens County. This non-native annual is well-established along roadsides and in waste places Upstate (especially in the vicinity of Albany) but is currently rare on Long Island.

Lobelia dortmanna; Water Lobelia (Campanulaceae, the Bell-flower Family; sometimes included in the Lobeliaceae, the Lobelia Family). This rare Long Island plant was first reported from east-

ern Suffolk County by E. S. Miller and H. W. Young in 1874. Historically, on Long Island it has been known from only two localities in Southampton Township. In July 2008, Rich Kelly and Guy Tudor independently observed the population thriving at Wildwood Lake, just south of Riverhead.

Lobularia maritima; Sweet Alyssum (Brassicaceae, the Mustard Family). Steven Glenn reported that a voucher of this non-native mustard was collected from Kings County in 2008. According to LIBS and BBG plant databases, this record is only the 5th from Long Island during the past 100 years.

Lycium barbarum; Matrimony-vine (Solanaceae, the Nightshade Family). Reported by Guy Tudor from Broad Channel, Queens County.

Malaxis unifolia; Green Adder's-mouth (Orchidaceae, the Orchid Family). Historically, 19 populations of this tiny, inconspicuous orchid have been known to occur on Long Island (based on voucher collections), but for the past 30 years only a single population has been relocated. From late July to 3 August 2008, Rich Kelly, Guy Tudor, and Mike Feder observed only one flowering individual of *M. unifolia* at the Manorville locality along North Street.

Metasequoia glyptostroboides; Dawn Redwood (Taxodiaceae, the Bald Cypress Family). Andy Greller et al. observed and collected adventive saplings of this "living fossil" from Alley Pond Park in Queens County, representing the 1st record of this widely-planted species escaping from cultivation in New York.

(Cont. from page 14)

Monarda fistulosa, Wild Bergamot (Lamiaceae, the Mint Family). A relatively large population was located by Guy Tudor on August 3rd along South Street in Manorville, about a mile west of the North Street intersection. This native mint of dry, sandy soils is considered rare on Long Island.

Monarda punctata* var. *villicaulis, Dotted Horsemint (Lamiaceae, the Mint Family). Lisa D'Andrea located a population of this native mint on the sandy/gravelly spit of Sammy's Beach in the Township of East Hampton. Chuck Sheviak, curator of the New York State Museum Herbarium in Albany, confirmed that

Lisa's find is the 2nd documented record of this species for Long Island; previously, it had been collected from Riverhead by Roy Latham on 18 July 1922.

Nelumbo nucifera, Pink Lotus, Sacred Lotus (Nelumbonaceae, the Lotus Family). Rich Kelly reported the national flower of India occurring in the southeast corner of Merrick Lake on the north side of Merrick Road, Nassau County. This occurrence is a new record for Long Island, but the winter-hardiness of this species on Long Island is unknown.

Physalis pubescens* var. *grisea, Downy Ground-cherry (Solanaceae, the Nightshade Family). Eric Lamont collected this species from dry sands at Northville Beach in the Town of Riverhead, Suffolk County. This collection represents the first record of this variety from Long Island, but apparently there is taxonomic and nomenclatural confusion surrounding this taxon. Steve Young, the state botanist for NYNHP, confirmed the identity of the collection.

Solanum rostratum [sometimes reported as *S. cornutum*]; Buffalobur (Solanaceae, the Nightshade Family). Mike Feder located one individual of this annual prairie plant in 2007, in a park at Queens Blvd. and Yellowstone Blvd. in Forest Hills, Queens County. On 22 July 2008, Guy Tudor reported additional flowering plants at the site.

Spiranthes tuberosa, Little Lady's-tresses (Orchidaceae, the Orchid Family). On 30 August 2008, Rich Kelly and Guy Tudor counted 225 flowering individuals of this delicate orchid at Cranberry Bog Preserve, south of Riverhead.

ANNOUNCEMENT:

The Planting Fields Arboretum Herbarium is, at long last, permanently settled in its new, climate controlled home with the Long Island State Park Archives, which is housed in the newly renovated Haybarn.

Now that spring is coming, and botanists will once again be taking to the field, the herbarium will gladly accept specimens of Long Island flora for the collection.

Dried and pressed, not mounted, specimens should include as much of the plant as possible, or practical. Identification to genus and species should be indicated, or at least the family, as a starting point for ID. We also need the collector's name and the date collected, as well as the location and a brief description of the habitat where it was found. GPS co-ordinates too, if available.

Visitors are welcome, but the herbarium is only staffed on Wednesday, from 10 to 3. Special arrangements can be made, however, for anyone who wants to visit on another day. I can be reached at 631-368-1877 or daveandrem@prodigy.net.

David Papayanopoulos

Tripsacum dactyloides, Northern Gamma Grass (Poaceae, the Grass Family). On 17 August 2008, Rich Kelly and Mike Feder located a population of this bizarre grass at Tackapausha Preserve in Nassau County. This species is listed as rare in New York by NYNHP.

Valeriana locusta, European Corn-salad (Valerianaceae, the Valerian Family). Located by Barbara Conolly and Rich Kelly at the very southern end of Douglaston Marsh just north of the LIE, and collected by Andy Greller from the same population along the recently disturbed edge of the macadam path in "The Alley" (near the Cross Island Parkway exit ramp of LIE-westbound), Queens County; this collection represents the 2nd report of this non-native species from Long Island. The draft LIBS atlas of L.I. vascular plants (2005) also lists this species from Queens County, but at this time it is not certain if the two reports represent the same population.

UPCOMING PROGRAMS

(cont. from pg. 16)

May 12, 2009*

Tuesday, 7:30 PM

Marilyn Jordan: "A Ranking System for Evaluating Non-Native Plant Species for Invasiveness: Legal implications for LI and NYS." In 2007 the Suffolk and Nassau County Legislatures passed resolutions that prohibited the sale of 63 non-native, invasive plant species. Species on these lists, and new species, will be revised based on invasiveness assessments made using a ranking system developed by The Nature Conservancy and the Brooklyn Botanic Garden. LIBS is providing valuable input as a member of a stakeholder review committee. Dr. Jordan will demonstrate how the ranking system works, present results, and discuss how the assessments will contribute to creation of prohibited plant lists. Marilyn received her Ph.D. in plant ecology from Rutgers University. She has more than 20 years of research experience at Rutgers, Cornell University, and the Ecosystems Center of the Marine Biological Laboratory (Woods Hole, MA). She is currently a conservation scientist for The Nature Conservancy.

Location: Bill Paterson Nature Center, Muttontown Preserve, East Norwich

June 9, 2009*

Tuesday, 5:30 PM

(please note early start time for the barbeque)

Annual Barbeque: The annual barbeque, featuring Chef Eric's made-to-order hot dogs and hamburgers. Salads, deviled eggs, desserts, etc. gladly accepted. The traditional location - on the green behind the Muttontown Preserve meeting house.

Location: Bill Paterson Nature Center, Muttontown Preserve, East Norwich

* Refreshments and informal talk begin at 7:30.

Formal meeting starts at 8:00 PM.

Directions to Muttontown: 516-571-8500

UPCOMING PROGRAMS

April 14, 2009* Tuesday, 7:30 PM

Sarah Gray: "More Than Just an Ant Trap: Dynamics of the Pitcher Plant, *Sarracenia purpurea*, and the Food Web Inhabiting its Leaves."

In order for the Pitcher Plant to receive its much needed nutrients, it must rely on the interactions within the microbial aquatic food web that resides inside its leaves. This talk will describe the essential interaction between this carnivorous plant and its food web, and experiments that are being done using this food web to ask fundamental questions about species interactions. Sarah is a Ph.D. Candidate in the Department of Ecology and Evolution at Stony Brook University. She is interested in how different biotic and abiotic factors affect the dynamics within a community through time. She is also using molecular techniques to determine the bacterial diversity of the food web and how it may affect both the plant and the remaining members of the food web.

Location: Museum of Long Island Natural Sciences, Earth and Space Science Building, Gil Hanson Room (Room 123), SUNY at Stony Brook, Stony Brook

April 14, 2009* Tuesday, 6:00 PM
Special Herbarium Workshop:

Prior to the regular meeting.

Members are invited to spend an hour perusing and annotating some of the several thousand herbarium specimens in the collection of the Museum of Long Island Natural Sciences at Stony Brook University. Collectors include John Cryan, Karen Blumer, Larry Penny, Harry Ahles. The entomology collection will also be made available. A light supper will be served to those staying to attend the meeting.

*Please reserve by phone 631-357-3065
or email mcon@optonline.net*

FIELD TRIPS

No field trips are scheduled this quarter.

LIBS needs you! Please volunteer to lead a future field trip. You don't need to be an expert field botanist. Please contact our field trip chair with ideas.

Programs continued on page 15